

**In the Claims:**

1-2. (Canceled)

3. (Original) A method for detecting a compound capable of modulating TGF- $\beta$  superfamily signalling, said method comprising the steps of:

- (a) providing a cell having:
  - (i) a reporter gene operably linked to a DNA-binding-protein recognition site;
  - (ii) a first fusion gene capable of expressing a first fusion protein, said first fusion protein comprising a polypeptide fragment of Smad3 covalently bonded to a binding moiety, said binding moiety capable of specifically binding to said DNA-binding-protein recognition site; and
  - (iii) a second fusion gene capable of expressing a second fusion protein, said second fusion protein comprising a polypeptide fragment of FAST-1 covalently bonded to a gene activating moiety;
- (b) exposing said cell to said compound; and
- (c) measuring reporter gene expression in said cell, a change in said reporter gene expression indicating said compound is capable of modulating TGF- $\beta$  superfamily signalling.

4. (Original) A method for detecting a compound capable of modulating TGF- $\beta$  superfamily signalling, said method comprising the steps of:

- (a) providing a cell having:
  - (i) a reporter gene operably linked to a DNA-binding-protein recognition site;
  - (ii) a first fusion gene capable of expressing a first fusion protein, said first fusion protein comprising a polypeptide fragment of FAST-1 covalently bonded to a binding moiety, said binding moiety capable of specifically binding to said DNA-binding-protein recognition site; and
  - (iii) a second fusion gene capable of expressing a second fusion protein, said second fusion protein comprising a polypeptide fragment of Smad3 covalently bonded to a gene activating moiety;
- (b) exposing said cell to said compound; and

(c) measuring reporter gene expression in said cell, a change in said reporter gene expression indicating said compound is capable of modulating TGF- $\beta$  superfamily signalling.

5-6. (Canceled)

7. (Original) A cell for detecting a compound capable of modulating TGF- $\beta$  superfamily signalling, said cell having:

- (a) a reporter gene operably linked to a DNA-binding-protein recognition site;
- (b) a first fusion gene capable of expressing a first fusion protein, said first fusion protein comprising a polypeptide fragment of Smad3 covalently bonded to a binding moiety, said binding moiety capable of specifically binding to said DNA-binding-protein recognition site; and
- (c) a second fusion gene capable of expressing a second fusion protein, said second fusion protein comprising a polypeptide fragment of FAST-1 covalently bonded to a gene activating moiety.

8. (Original) A cell for detecting a compound capable of modulating TGF- $\beta$  superfamily signalling, said cell having:

- (a) a reporter gene operably linked to a DNA-binding-protein recognition site;
- (b) a first fusion gene capable of expressing a first fusion protein, said first fusion protein comprising a polypeptide fragment of FAST-1 covalently bonded to a binding moiety, said binding moiety capable of specifically binding to said DNA-binding-protein recognition site; and
- (c) a second fusion gene capable of expressing a second fusion protein, said second fusion protein comprising a polypeptide fragment of Smad3 covalently bonded to a gene activating moiety.

9-10. (Canceled)

11. (Original) A method for detecting a compound capable of modulating TGF- $\beta$  superfamily signalling, said method comprising the steps of:

- (a) providing a first polypeptide, said first polypeptide comprising a polypeptide fragment of FAST-1;
- (b) providing a second polypeptide, said second polypeptide comprising a polypeptide fragment of Smad3;

(c) exposing said first polypeptide to said second polypeptide and to said compound; and

(d) measuring the level of interaction between said first polypeptide and said second polypeptide, an alteration in said level of interaction indicating said compound is capable of modulating TGF- $\beta$  superfamily signalling.

12. (Original) A method for detecting a compound capable of modulating TGF- $\beta$  superfamily signalling, said method comprising the steps of:

(a) providing a first polypeptide, said first polypeptide comprising a polypeptide fragment of Smad3;

(b) providing a second polypeptide, said second polypeptide comprising a polypeptide fragment of FAST-1;

(c) exposing said first polypeptide to said second polypeptide and to said compound; and

(d) measuring the level of interaction between said first polypeptide and said second polypeptide, an alteration in said level of interaction indicating said compound is capable of modulating TGF- $\beta$  superfamily signalling.

13-14. (Canceled)

15. (Original) A method for detecting a compound capable of modulating TGF- $\beta$  superfamily signalling, said method comprising the steps of:

(a) providing a reporter gene operably linked to a DNA-binding-protein recognition site;

(b) providing a first fusion protein, said first fusion protein comprising a polypeptide fragment of FAST-1 covalently bonded to a binding moiety, said binding moiety capable of specifically binding to said DNA-binding-protein recognition site;

(c) providing a second fusion protein, said second fusion protein comprising a polypeptide fragment of Smad3 covalently bonded to a gene activating moiety;

(d) exposing said first fusion protein to said second fusion protein, to said reporter gene, and to said compound; and

(e) measuring the reporter gene expression, a change in said reporter gene expression indicating a compound capable of modulating TGF- $\beta$  superfamily signalling.

16. (Original) A method for detecting a compound capable of modulating TGF- $\beta$  superfamily signalling, said method comprising the steps of:

- (a) providing a reporter gene operably linked to a DNA-binding-protein recognition site;
- (b) providing a first fusion protein, said first fusion protein comprising a polypeptide fragment of Smad3 covalently bonded to a binding moiety, said binding moiety capable of specifically binding to said DNA-binding-protein recognition site;
- (c) providing a second fusion protein, said second fusion protein comprising a polypeptide fragment of FAST-1 covalently bonded to a gene activating moiety;
- (d) exposing said first fusion protein to said second fusion protein, to said reporter gene, and to said compound; and
- (e) measuring the reporter gene expression, a change in said reporter gene expression indicating a compound capable of modulating TGF- $\beta$  superfamily signalling.